Bay Trading Area
Services Opportunity Analysis

Prepared for
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Outline

I. Study Objectives
II. Methodology
III. Summary Conclusions
IV. Respondent Demographics
V. Findings
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A. Questionnaire
B. Definitions

I. Study Objectives/Scope

- Determine systems software support requirement
- Identify propensity to buy outside
- Estimate market size for services under study
- Segment market based on field research
- Identify high-potential offerings

Scope

- San Francisco Bay Trading Area
- IBM's existing customer base
- AS/400 and above
- Systems programming-related services (problem management and infrastructure migration)

II. Methodology

- Jointly designed questionnaire (see appendix)
- Field research—telephone interviews (sample size = 80)
- Analysis of field data
  - Market segments
  - High-potential offerings
  - User requirements
  - Market sizing

IV. Respondent Demographics—Summary

- Sample size = 80
- 61% characterized as oriented toward the use of outside services
- Four companies already outsourcing significant parts of their operation
- 70% declined to specify total IS budget
- Respondents—management or executive level (80%)
- 60% of respondents have at least 2 IBM architectures installed; 40%—head of IS department
- MVS and AS/400 dominate

III. Summary Conclusions

- Interest in going outside for this class of services *lower* than anticipated
  - About 40% of respondents prefer in-house solutions
  - Survey results do indicate potential targets within the specific service areas
- Respondents much more receptive to using outside suppliers for management of "areas of activity"—in effect, collections or groupings of specific targeted service offerings
- IBM considered viable but perhaps expensive supplier
- Interest in specific services seems greater in AS/400 shops as compared to MVS/VM organizations
- Strong interest in services related to the deployment of newer or unfamiliar technologies
- Packaging specific service items into groupings that address general problems, and selling with a "consulting" approach, are key to market success.

Respondent Demographics
Company Size

Revenue	Total Sample Respondents (%)	Users of Outside Services Respondents (%)
Less than 50M	22	16
50 - 100M	10	11
101 - 500M	40	47
More than 500M	28	26
	100	100

Respondent Demographics
Industries Represented

Industry	Total Number of Respondents	Users of Outside Services
Discrete Mfg.	5	2
Process Mfg.	16	10
Transportation	3	2
Utilities	3	3
Communications	2	1
Retail	9	5
Wholesale	1	1
Banking/Finance	7	4
Insurance	6	3
Medical	1	1
Services	15	9
Education	2	2
State/Local Govt.	5	4
Other	2	1

Respondent Demographics
User or Provider of IS

	Total (Percent)	Users of Outside Services (Percent)
User	29	26
Provider	64	66
Both	7	8
	100	100

Respondent Demographics
Title of Respondent

Respondent Title	Number of Respondents	Percent of Sample
VP/Dir./Mgr. - IS	31	41
Dir./Mgr. Applications	5	6
Dir./Mgr. Operations	23	29
Systems Programming	6	7
Controller/Accounting	5	6
Other (Info. Ctr., Education, Admin., Other)	9	11
	79	100

Respondent Demographics
Dominant IBM Architecture

	Total (Percent)	Users of Outside Services (Percent)
MVS	44	43
VM	5	6
VSE	11	8
AS/400	40	43
	100	100

Respondent Demographics
Number of IBM Architectures Installed

Number of Architectures	Number of Respondents	Percent
1	34	42
2	29	36
3	16	20
4	1	2
	80	100

V. Findings

- Consulting and education
- Operational management services
- Interest in specific services
  - Total sample
  - Users of outside services
  - VM/MVS versus other
  - Potential targets
  - Comments
- Technology deployment
- Market Size

Likeliness to Engage Outside Firms for Consulting and Education Services

	Total Sample		Users of Outside Services	
	Any Supplier	IBM as Supplier	Any Supplier	IBM as Supplier
Organizational Consulting	2.0	2.1	2.2	2.4
Systems Operational Assements	2.2	2.3	2.5	2.6
Educational Services	3.5	3.2	3.5	3.3

Rating—1 to 5: 1 = Very Unlikely, 5 = Very Likely

Operational Management Services—Total Sample

General Types of Services	Number Mentioned	Would Go Outside (%)
Tuning systems performance	17	74
Updating to new systems software releases	6	67
Installation of new systems software	7	43
Simplifying operations	8	63
Verifying current environmental capabilites	4	75
Improving systems availability	1	0

Operational Management Services
Users of Outside Services

General Types of Services	Number Mentioned	Would Go Outside (%)
Tuning systems performance	31	48
Updating to new systems software releases	11	45
Installation of new systems software	11	36
Simplifying operations	12	42
Verifying current environmental capabilites	6	50
Improving systems availability	3	33
All of the above	9	44
None	7	-

Interest in Specific Services
Total Sample

Service Area	Mean Interest		
	Planning	Imple-mentation	IBM as Provider
Installation of systems software	1.7	1.7	1.7
Systems software maintenance	1.8	1.9	1.9
Problem management	2.0	1.9	2.0
Change management	1.8	1.8	1.9
Configuration management	2.0	1.9	1.9
System availability management	1.8	1.8	1.9
Performance management	2.2	2.2	2.2
Capacity planning	2.2	2.3	2.1
Storage management	1.8	1.9	1.8
Systems security management	1.8	1.8	1.8
Operations automation	2.1	2.1	2.1
System workload consolidation	1.9	1.9	2.0

Sample = 80

Rating—1 to 5: 1 = Very Unlikely, 5 = Very Likely

Interest in Specific Services
Users of Outside Services

Service Area	Mean Interest		
	Planning	Imple-mentation	IBM as Provider
Installation of systems software	1.9	1.9	2.0
Systems software maintenance	2.2	2.3	2.2
Problem management	2.2	2.2	2.4
Change management	2.1	2.1	2.2
Configuration management	2.3	2.3	2.3
System availability management	2.0	2.1	2.3
Performance management	2.5	2.6	2.6
Capacity planning	2.5	2.7	2.4
Storage management	2.0	2.2	2.2
Systems security management	2.0	2.1	2.2
Operations automation	2.4	2.5	2.7
System workload consolidation	2.2	2.2	2.5

Sample = 49

Rating—1 to 5: 1 = Very Unlikely, 5 = Very Likely

Interest in Specific Services MVS/VM Dominant Architecture

Service Area	Mean Interest		
	Planning	Imple-mentation	IBM as Provider
Installation of systems software	1.5	1.5	1.4
Systems software maintenance	1.4	1.4	1.5
Problem management	1.6	1.6	1.5
Change management	1.4	1.5	1.4
Configuration management	1.6	1.6	1.5
System availability management	1.5	1.5	1.5
Performance management	2.1	2.1	1.9
Capacity planning	2.2	2.3	1.9
Storage management	1.5	1.6	1.5
Systems security management	1.5	1.5	1.5
Operations automation	1.8	1.9	2.0
System workload consolidation	1.7	1.7	1.9

Sample = 39

Rating—1 to 5: 1 = Very Unlikely, 5 = Very Likely

Interest in Specific Services
MVS/VM Dominant Architecture
User of Outside Services

Service Area	Mean Interest		
	Planning	Imple-mentation	IBM as Provider
Installation of systems software	1.8	1.8	1.7
Systems software maintenance	1.6	1.7	1.8
Problem management	1.8	1.8	1.7
Change management	1.6	1.7	1.5
Configuration management	1.9	2.0	1.8
System availability management	1.8	1.8	1.8
Performance management	2.7	2.7	2.3
Capacity planning	2.7	2.8	2.3
Storage management	1.9	2.0	1.8
Systems security management	1.8	1.8	1.8
Operations automation	2.3	2.4	2.5
System workload consolidation	2.1	2.1	2.4

Rating—1 to 5: 1 = Very Unlikely, 5 = Very Likely

Specific Services—Potential Targets Users of Outside Services, Responding 3, 4, or 5

Service Area	Frequency		
	Planning	Imple-mentation	IBM as Provider
Installation of systems software	14	16	16
Systems software maintenance	16	17	19
Problem management	18	18	23
Change management	12	16	18
Configuration management	17	18	19
System availability management	14	14	19
Performance management	22	25	26
Capacity planning	24	26	23
Storage management	15	17	17
Systems security management	14	17	18
Operations automation	22	24	27
System workload consolidation	21	22	23

Sample = 49

Specific Services—Potential Targets

Market Segment	Opportunity Areas		
	Installation	Maintenance	Systems Mgmt.
Penny savers		• Systems software maintenance • Systems workload consolidation • Configuration management	
High leverage savers		• Problem management	• Capacity planning • Perf. mgmt.
Technology exploiters			• Operations automation

Specific Services—Comments
Total Sample

	Mentions
Most work done exclusively in-house	38
Would consider IBM	12
Good products/company IBM	9
IBM too expensive	6
IBM not responsive/Box concentration	4

Sample = 80

Multiple responses allowed

Specific Services—Comments
Users of Outside Services

	Mentions
Would consider IBM	10
Good products/company IBM	4
IBM too expensive	3
IBM not responsive/Box concentration	2

Sample = 50

Multiple responses allowed

Technology Deployment
Total Sample

Technology	Number of Mentions	Average Interest	
		Planning	Sample
Client/Server	45	3.1	3.1
Image-based application	15	2.6	2.7
Optical fiber	10	4.1	4.0

Sample = 80

Technology Deployment
Users of Outside Services

Technology	Number of Mentions	Average Interest	
		Planning	Sample
Client/Server	28	3.4	3.4
Image-based application	8	3.4	3.6
Optical fiber	9	4.2	4.1

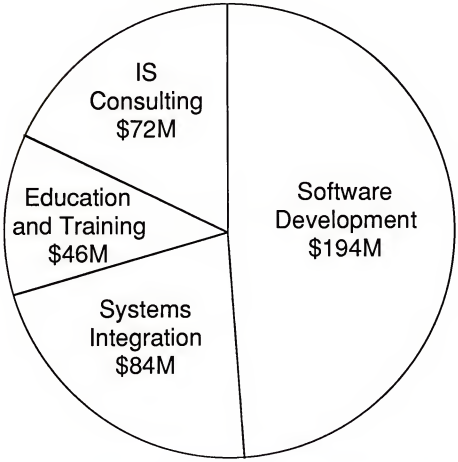
Sample = 50

Technology Deployment
Other Technologies

- Networking—LAN and PC (4 mentions)
- Distributed processing
- New CASE tools
- Lights-out operation
- Capacity planning
- Voice recognition

Bay Trading Area Total Professional Services

1992 = $396M



- Systems operations support services not included

Bay Trading Area
Professional Services Expenditures
1992

	Bay Trading Area ($M)	Technical Support Prof. Svcs. ($M)	IBM Related ($M)	IBM Specific Support Services ($M)
IS Consulting	72	11	5	?
Software Development	194	10	6	?
Education and Training	46	11	6	N/A
Systems Integration	84	5	2	?
Total	396	37	19	?

- Growth rates driven by computer equipment sales and willingness to shift to external expenditures.

VI. Recommendations

- Present offerings as consulting service as opposed to specific projects or tasks
- Bundle specific services into solution sets for marketing purposes. For example:

  Tuning systems performance =

  - Configuration management +
  - Performance management +
  - Capacity management +
  - Storage management
- Position offerings as operations management-based services—*not* technically based. Implications:
  - Marketing collateral
  - Relationship sell—account management
  - "Program" approach

- Focus for specific services on the following:
  - Performance management
  - Capacity planning
  - Operations automation
  - System workload consolidation
- Develop different approaches for MVS and AS/400 markets
- Package a complete set of services around client/server technology deployment

User Questionnaire—YRSF2, Area 11 Opportunity Analysis

CONFIDENTIAL

IBM is trying to identify user needs for specific classes of technical support services related to the management and maintenance of in-house information systems environments. To help assess these needs the IBM Bay Trading Area has engaged INPUT, an independent research firm, to survey potential users of these services in order to find out how to allocate its resources to best service existing and potential customers. This survey is not being conducted to generate specific leads. All responses to the survey will be considered confidential, and the responses of individual respondent firms will not be disclosed to IBM. In appreciation of your willingness to participate, INPUT will be sending you a synopsis of the survey results.

Interviewer Note: *Use standard cover sheet to gather information on firm's revenues, respondent's name and title, address, and industry classification.*

DEMOGRAPHICS

1.1 Within your firm are you primarily a user of information systems or a provider?

[ ] User
[ ] Provider

1.2 Please describe your function.

_____

_____

_____

_____

DESCRIPTION OF INFORMATION REQUIRED

For each class of service we are trying to obtain a quick evaluation of:

- Your tendency to look outside for a supplier of this service;
- Why you might look to an outside supplier for the service;
- And, whether or not you would consider IBM as a provider of the service.

In general the types of services being covered include:

- Installation of new systems software
- Updating to new releases of systems software
- Tuning systems performance
- Improving systems availability
- Simplifying operations
- Verifying that the current environment can handle new applications

OPERATIONAL MANAGEMENT SERVICES

Of the kinds of services mentioned above, where do you believe that you might have the greatest need? And would you go outside? *(Check Box)*

2.0 _____ [ ]
2.1 _____ [ ]
2.2 _____ [ ]

We would also like your opinions on several specific service areas; your interest in going outside for support with regard to either planning or implementation, and the degree to which you consider IBM a viable supplier of the service for planning or implementation activities where:

- **PL**a**N**ning includes Analysis, Design or Related Development Activity
- **IM**Plementation includes, Installation Testing and Activating the Necessary Tools

For each class of service please give us your opinion of how likely you would be to look outside for the service on a scale of 1 - 5, with 1 being very unlikely and five being very likely. Also using the same 1 - 5 scale, please provide an indication of how likely you would be to engage IBM for either planning or implementation of the service.

	SERVICE AREA	X.1 PLN	X.2 IMP	X.3 IBM	X.4 REASON
3.X	Installation of Sys. Software				
4.X	Systems Software Maint.				
5.X	Problem Management				
6.X	Change Management				
7.X	Configuration Mgt.				
8.X	Systems Availability Mgt.				
9.X	Performance Management				
10.X	Capacity Planning				
11.X	Storage Management				
12.X	Systems Security Mgt.				
13.X	Operations Automation				
14.X	Sys. Workload Consolidation				

TECHNOLOGY DEPLOYMENT

We are also interested in the types of technology that you feel must be explored or implemented by your organization over the next several years. Examples might include: image-based applications, client/server architectures, optical fiber connections or lights-out data center operations. Please indicate which technologies (not limited to the examples) that you feel are important, and whether you might be looking outside for services to support their planning and/or installation. We will use the 1 - 5 scale to rate your interest in going outside for service support, with 1 indicating little or no interest and 5 indicating a high degree of interest.

X.1 TECHNOLOGY	X.2 PLN	X.3 IMP
15.X		
16.X		
17.X		
18.X		
19.X		

CONSULTING AND EDUCATION

Using a scale of 1 - 5, with five being most likely, how likely is it that you would engage an outside firm for the following types of consulting and educational services. Also, please rate on the same scale your evaluation of how likely it is that you would consider IBM as a key potential supplier of the services.

20.1 *Organizational Consulting* - Providing the customer with consultation on organization, staffing, skills, and resource utilization to support the technical support function.

_____ (1 - 5)

20.2 _____ IBM as a supplier (1 - 5)

20.3 *Systems Operational Assessments* - Assessment of the customer's systems management processes, tools and organization to evaluate effectiveness in managing the infrastructure.

_____ (1 - 5)

20.4 _____ IBM as a supplier (1 -5)

20.5 *Educational Services* - Services encompassing the traditional technical skills and the additional skills required to transform the technical support organization.

_____ (1 - 5)

20.6 _____ IBM as a supplier (1 - 5)

BUDGET AND OTHER INFORMATION

21.0 Approximately what is your firm's overall annual budget for information systems?
_____ (000s)

21.1 Do you currently outsource all or part of your data processing operations to an outside firm?
_____ Y/N

21.3 If so, with whom? _____

21.4 Please estimate what percentage of the firm's (institution's) total annual budget for information systems is spent on outside services such as those discussed in this interview.
_____%

21.5 Could you please indicate which of the following IBM architectures (as indicated by operating systems type) are currently installed in your firm.

21.6 [ ] MVS
21.7 [ ] VM
21.8 [ ] VSE
21.9 [ ] AS/400
30.0 [ ] Other:_____

31.0 Which of these do you feel is the dominant architecture?

_____

CLOSING

"Thank you for participating in our survey. We will be sending you the synopsis of the survey that we discussed at the opening of the interview within two months. If you have any additional questions regarding INPUT, its products or services, please feel free to contact us at our Mountain View office at 415-961-3300."

Definitions—Technical Support Services

The following provides definitions for the specific classes of technical support services to be analyzed as part of INPUT's user survey. The numbers following the service name correspond to the question number in the questionnaire.

- **INSTALLATION OF SYSTEMS SOFTWARE** (3.X) - All the activities required to make various kinds of systems software function as an element of the customer's operating systems. (IBM and non-IBM)
- **SYSTEMS SOFTWARE MAINTENANCE** - (4.X) - Planning and installation of changes to keep the system at high availability and serviceability levels.
- **PROBLEM AND CHANGE MANAGEMENT** - (5.X/6.X) The deployment of tools and processes to manage problems and implement required and other changes to the systems software environment.
- **CONFIGURATION MANAGEMENT** - (7.X) The tools and processes to maintain the systems inventory, including hardware and software and network elements of the system.
- **SYSTEMS AVAILABILITY MANAGEMENT** - (8.X) The deployment of tools and methodology to measure, track and improve systems availability to meet service-level objectives. This includes failure avoidance, rapid recovery from failure and continual operation.
- **PERFORMANCE MANAGEMENT** - (9.X) The deployment of tools and methodology to measure, track, assess and tune the system to improve systems performance. This also includes service-level planning.
- **CAPACITY MANAGEMENT** - (10.X) The deployment of tools and methodology to measure, track and project systems capacity requirements to meet service-level objectives.

- **STORAGE MANAGEMENT** - (11.X) The deployment of tools and processes to enhance the performance and optimize the usage of resources in the storage environment, including DASD, tape cache and memory. This also includes the migration to new storage management subsystems.

- **SYSTEMS SECURITY MANAGEMENT** - (12.X) The deployment of tools and processes and the enhancement of employee awareness to ensure security of the organization's information assets.

- **OPERATIONS AUTOMATION** - (13.X) Migration to automated systems and network operations.

- **SYSTEMS WORKLOAD CONSOLIDATION** - (14.X) The evaluation, planning and implementation activities required to optimize systems workload. The consolidation may be driven by needs to streamline the operation, reduce costs, or merge businesses, or by other business imperatives.

- **ORGANIZATIONAL CONSULTING** - (20.1) - Consulting on organization, staffing, skill requirements and resource utilization as it relates to developing and managing an effective and efficient technical support function.

- **SYSTEMS OPERATIONAL ASSESSMENTS** - (20.3) - Assessment of the customer's operational systems management processes, tools and organization. (Major areas of evaluation would be, capacity, availability, problem/change management, systems operations and performance.)

- **EDUCATIONAL SERVICES** - (20.5) - Provision of education for systems programming staff in coping with the growing demands of increasingly complex operating environments, as well as the provision of traditional training for systems programmers.

About INPUT

INPUT provides planning information, analysis, and recommendations for the information technology industries. Through market research, technology forecasting, and competitive analysis, INPUT supports client management in making informed decisions.

Subscription services, proprietary research/consulting, merger/acquisition assistance, and multiclient studies are provided to users and vendors of information systems and services. INPUT specializes in the software and services industry which includes software products, systems operations, processing services, network services, systems integration, professional services, turnkey systems, and customer services. Particular areas of expertise include CASE analysis, information systems planning, and outsourcing.

Many of INPUT's professional staff members have more than 20 years' experience in their areas of specialization. Most have held senior management positions in operations, marketing, or planning. This expertise enables INPUT to supply practical solutions to complex business problems.

Formed as a privately held corporation in 1974, INPUT has become a leading international research and consulting firm. Clients include more than 100 of the world's largest and most technically advanced companies.

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